



DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY



Protecting the Supply Chain



Protecting the Supply Chain – Qualification Programs

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Overview

- **Counterfeit risk mitigation for microcircuits / semiconductors**
 - *Overview of Supplier Qualification Programs*
 - Discuss QSLD/QTSL Programs
 - *DLA's DNA Marking Process (microcircuits)*
- **DLA Product Test Center**
- **Stock Integrity Program**
- **Customer Complaints**
- **Contractual Testing**
- **High Risk Procurement Surveillance**



Supplier Qualification Programs

QPL

Qualified Products Lists

- Approve Suppliers Against Military Specs
- 228 QPLs in 30 FSCs w/900 Manufacturers
- Responsibilities Include
 - Audit manufacturing site and test labs
 - Approve qualification test reports

Ensure Reliable Suppliers of Competitive Items

QSLD

Qualified Suppliers List of Distributors

- Approved Distributors of Microcircuits
 - 37 approved sources
- Responsibilities Include
 - Audit distributor locations
 - Traceability back to manufacturer

When OEM/OCM Parts Unavailable... Audited Distributors

QTSL

Qualified Testing Suppliers List

- Approved Distributors of Microcircuits Who Test Prior to Shipment to DLA
 - 17 approved sources
- Responsibilities Include
 - Audit distributor and test locations

When Traceability Documentation Unavailable... Audited Testers

QSLM

Qualified Suppliers List of Manufacturers

- Approved Suppliers of Gun Parts
 - 36 approved sources
- Requires NADCAP Certification
- Responsibilities Include
 - Audit manufacturing locations

Rationalized Gun Parts Supply Chain

Protects Against Counterfeits and Quality Problems



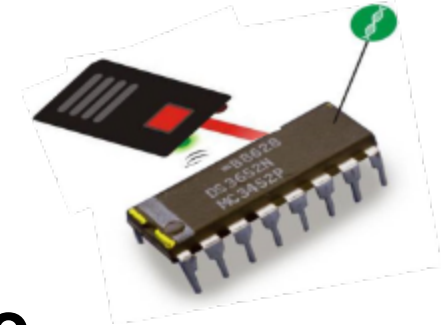
QSLD/QTSL Programs

- **Support DLA Land and Maritime Acquisitions**
 - *FSC 5961 Semiconductor Devices*
 - *FSC 5962 Microcircuits*
- **Qualified Suppliers List of Distributors (QSLD)**
 - *Implemented March 2009*
 - *Full chain of custody (Valid traceability documentation available)*
 - *On-site validation required initially and periodically*
- **Qualified Testing Suppliers List (QTSL)**
 - *Implemented February 2013*
 - *Full chain of custody not available (no traceability)*
 - *Use testing/inspection to validate authenticity*
 - **SAE AS6081**
 - *On-site validation required initially and periodically*



DNA Marking of Microcircuits

- **Mark High Counterfeit Risk Items**
 - *With Unique Identifier*
 - *To Prove Origin*
- **Began 2012 by Requiring Suppliers to Apply Marks**
 - *Industry Push-Back*
 - *Increased Costs*
- **Moved All Marking to Organic Capability Dec 2014**
- **Reduced Marking Cost 62%**
- **Increased Vendor Base**



**Reduced
Costs; Better
Parts
Availability**



Points of Contact

- **DLA Land and Maritime, Sourcing and Qualifications Division Chief – Joe Gemperline**
 - (614) 692-0663
 - Joseph.Gemperline@dla.mil
- **QLSD/QTSL Programs – Ray Kolonchuk**
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- **Customs Devices Branch – Michael Adams**
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Protecting the Supply Chain – Test Programs



DLA Product Test Center

Mechanical: Columbus

- Dimensional
- Material / Tensile
- Pressure Test
- Plating Thickness
- Hardness Testing
- Calibration
- NDT (Contract Out)

Electronic: Columbus

- Electrical/Electronic
- Materials Analysis
- Destructive Physical Analysis
- Environmental Simulation Testing (Shock, Vibration, Salt Spray)
- Reliability Testing
- DNA Marking

Analytical: Philadelphia

- Chemical Analysis
- Physical Testing of Textile Items
- Color Shading
- Ballistics
- Environmental

MISSION:

Provide Accurate And Cost Effective Test Results In A Timely Manner

FY14 Test Project Completions:

Analytical	10,512
Electronic	1,914
Mechanical	<u>1,236</u>
	13,662

FY15 Test Project Completions: (Through 2nd QTR)

Analytical	4,688
Electronic	1,282
Mechanical	<u>548</u>
	6,518



Stock Integrity Program

- **Targeted Sampling Model**
 - *Weapons System Application/Critical Application*
 - *Random contracts – National Stock Number (NSN) driven*
 - *FY14 – 1563 tests performed*
- **Test For Cause**
 - *Weapons System Application/Critical Application*
 - *Contract/Contractor specific – Referral driven*
 - *FY14 – 339 tests performed*



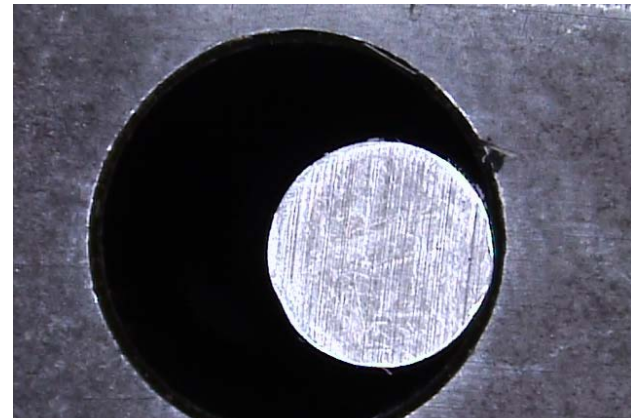
Customer Complaints

- **Directed Testing**

- *Validates field failures – Product Quality Deficiency Reports and investigating discrepancies*
- *Driven by the Product Specialist*
- *FY14 – 387 tests performed*



Hole Misalignment



Hole Misalignment – Picture Taken When Aligned on Ø.190 Hole



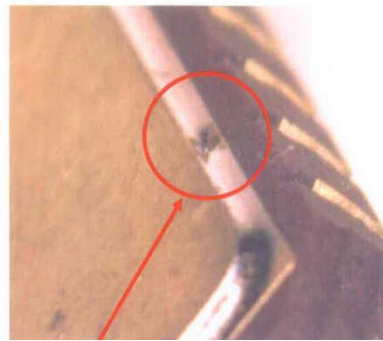
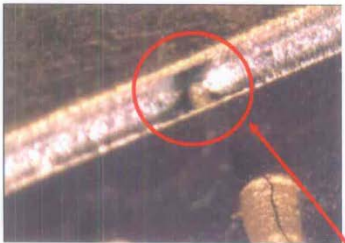
Contractual Testing

- **First Article Testing at Government Laboratories**
 - *Driven by Engineering Support Activities (ESAs)*
 - *FY14 – 468 tests performed*
- **Production Lot Testing**
 - *Driven by ESAs or Product Specialist*
 - *FY14 – 227 tests performed*

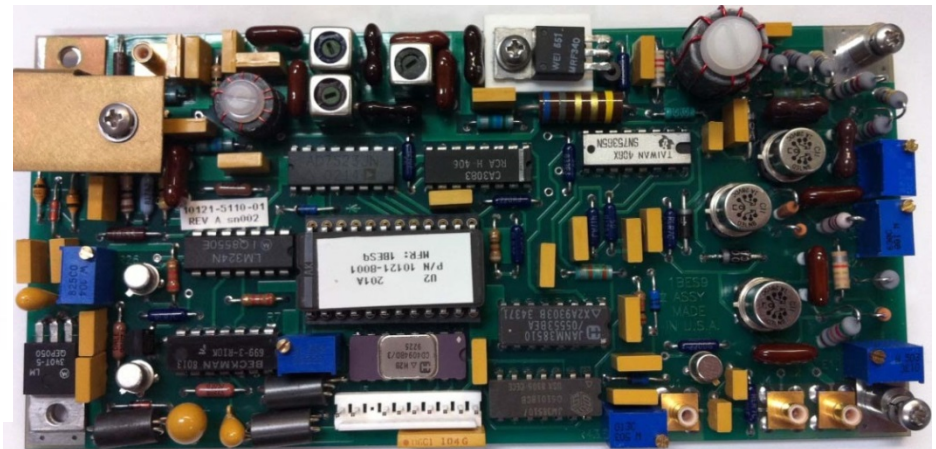


Contractual Testing Cont.

- **Product Verification Test Clause**
 - *Pre-Acceptance Testing*
 - *Samples sent to the Government Lab – 15 days*
 - *Government leverage to execute/terminate contract*
 - *FY14 – 98 tests performed*



Substandard Solder Bead on Lid Seal.
2 of 15 Devices





High Risk Procurement Surveillance

- Root-out Fraudulent and Improper Contractor Performance
- Pursue Appropriate Remedies
 - *Administrative*
 - *Judicial*
 - *Contractual*
- **FY14: 18 Convictions; 8.5 Years Prison Time; Restitution Exceeded \$1.75M**
- **FY15: 10 Convictions; 18.5 Years Prison Time; Restitution \$8M**
- **\$227M Total Ordered Restitution in 25 Years**





Points of Contact

- **DLA Land and Maritime, Test Lab**
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- **Product Verification Division**
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Summary

- **Continuously Refining the Process**
 - *QSLD/QTSL Programs*
 - *DNA Marking*
- **DLA Proactively Engaged with Protecting the Supply Chain**
 - *Existing DLA Stock*
 - *New Procurements*
 - *Customer Complaints*
- **Encourage Industry Input**



Conclusion

